on any additional high-cost territory than that which is already associated with the exchange. Indeed, a new entrant could eschew ETC status, request interconnection and serve only downtown Moses Lake. Fifty miles west, however, a would-be new entrant ETC would have to serve all potential customers in the Ellensburg, Thorp, Selah, Kittitas, and Vantage exchanges. Entry into Ellensburg without ETC status would depend on Commission waiver of the interconnection exemption afforded small companies.

Another example of odd circumstances which can occur if study areas are not broken up into exchange-level service areas is presented by Inland Telephone. Inland serves Colton, Johnson, and Uniontown (all in Whitman County), Prescott (in Walla Walla County), Roslyn (in Kittitas County) and Dewatto and Toonerville (in Mason County). If their study area is maintained as their service area, a potential ETC competitor would have to be willing to serve any potential customer in four different areas spread across the state. PTI and, to a lesser extent, Sprint/United, are similarly dispersed across the state.

Companies with non-contiguous exchanges, such as those described above, present a particular problem for would-be wireless competitors. Wireless companies do not generally span such broad areas as an entire state. While the Joint Board did not recognize this problem, the FCC did and concluded that non-contiguous study areas should be broken up into smaller service areas. (See Tab 5, ¶ 190).

Multiple ETC Designation Is in the Public Interest

Where the subject of competition is concerned, the public interest in Washington is defined by RCW 80.36.300[28] and *In re Electric Lightwave Inc.*. As explained in the first section of this memo, other states may have the option of not hearing a petition from a competitor asking to be designated along with an incumbent in a rural service area. In Washington, however, the decision in ELI strongly suggests that such a petition must be heard and, if the petitioner meets the requirements for an ETC, granted. However, the case can be made on policy grounds alone that it is in the public interest to designate all qualified petitioners for both non-rural and rural service areas alike.

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[28] **80.36.30 Policy declaration.** The legislature declares it is the policy of the state to:

(1) Preserve affordable universal telecommunications service;

(2) Maintain and advance the efficiency and availability of telecommunications service;

(3) Ensure that customers pay only reasonable charges for telecommunications service;

(4) Ensure that rates for noncompetitive telecommunications services do not subsidize the competitive ventures of regulated telecommunications companies;

(5) Promote diversity in the supply of telecommunications services and products in telecommunications markets throughout the state; and

(6) Permit flexible regulation of competitive telecommunications companies and services. [1985 c 450 § 1.]

Implicit universal service supports are substantial in high-cost areas served by so-called rural and non-rural companies alike.[29] There appear to be two ways to attempt to reduce the level of support, through competition or regulation. Regulation has not reduced supports in the recent past and it is not the option presently in favor. Competition, on the other hand, should result in cost-cutting and other efficiencies.

Consumer choice and service quality are additional policy grounds for promoting competition through designation of all qualifying ETC petitioners.[30] Competition is expected to give many urban dwellers and businesses a choice of carriers. Their ability to choose, and choose again, is a strong force exerted on the market that ensures efficient cost-cutting and high-quality service. Designation of additional ETCs in areas served by so-called rural companies means customer choice will expand to areas which often see such choices only long after they have arrived in urban areas.

Delayed Effect of Exchange-Level Service Area Designations

Staff will recommend that the designation of service areas at the exchange level for rural companies be delayed to give the FCC an opportunity to apply their procedure for review of such state decisions. This is in response to a concern expressed by WITA that it might be problematic if those designations were effective on January 1, 1998 and the FCC subsequently were to take issue with them. Here are the effective dates we will recommend (including the non-rural companies):

	Non-Rural Companies and new Competitors
USWC	Designations at exchange level effective 1/1/98
GTE	Designations at exchange level effective 1/1/98
US Cellular	Designations at exchange level effective 1/1/98
	Single-Exchange Rural Companies
Hat Island	Designation at exchange level effective 1/1/98
Hood Canal	Designation at exchange level effective 1/1/98

[29] So-called high-cost companies may receive as much as 60%of total revenues from federal and state programs today. Many rural areas served by non-rural companies receive substantial support through price-averaging.

[30] See Additional State Requirements For ETCs, above, for legal support.

Mashel	Designation at exchange level effective 1/1/98
Kalama	Designation at exchange level effective 1/1/98
Toledo	Designation at exchange level effective 1/1/98
St. John	Designation at exchange level effective 1/1/98
	Large Multi-Exchange Rural Companies
PTI	Designation at study area level 1/1/98; At exchange level 4/1/98
Sprint/United	Designation at study area level 1/1/98; At exchange level 4/1/98
	Small Multi-Exchange Rural Companies[31]
Asotin (TDS)	Designation at study area level 1/1/98; At exchange level 7/1/98
Cowiche	Designation at study area level 1/1/98; At exchange level 7/1/98
Ellensburg	Designation at study area level 1/1/98; At exchange level 7/1/98
Inland	Designation at study area level 1/1/98; At exchange level 7/1/98
Lewis River(TDS)	Designation at study area level 1/1/98; At exchange level 7/1/98
McDaniel (TDS)	Designation at study area level 1/1/98; At exchange level 7/1/98
Pend Oreille	Designation at study area level 1/1/98; At exchange level 7/1/98
Pioneer	Designation at study area level 1/1/98; At exchange level 7/1/98
Tenino	Designation at study area level 1/1/98; At exchange level 7/1/98
West. Wahkiakum	Designation at study area level 1/1/98; At exchange level 7/1/98

[31] In some instances, these companies may have some exchanges that are separate in name only. Adjoining exchanges may be part of a single calling area and even served out of a common central office. Companies may wish to eliminate these historically derived boundaries, either before or after 7/1/98. Staff believes these adjustments would be reasonable unless they appear to unfairly hinder competition.

Whidbey Island	Designation at study area level 1/1/98; At exchange level 7/1/98
Yelm	Designation at study area level 1/1/98; At exchange level 7/1/98

Whidbey Telephone Company

Whidbey Island has petitioned to have the Commission state in its order that it does not object to inclusion of the company's Supplemental Service Area (SSA) in the company's study area. If the Commission does this and the FCC amends the study area, then Whidbey will be eligible to receive universal service support for serving customers for which it has not received support in the past.

The history is not convoluted, but is also not clear. Historically, no exchange boundaries have overlapped and that was so at least until 1995 when Whidbey filed a new service exchange map which appeared to have a boundary approximately three miles farther north than had been the case.

GTE, which operates in the Coupeville exchange to the north protested the filing, but in their protest they said the filing "proposes to extend WTC's [Whidbey Telephone Company] exchange into presubscribed service territory of GTE..." Their initial filing in UT-950277, wherein they complained of the Commissions acceptance of the SSA tariff filing, GTE referred to Whidbey's territory as "including a portion of WTC's South Whidbey Exchange designated a Supplemental Service Area (the SSA)." Twice they refer to the SSA as part of the South Whidbey Exchange, but now they say it is in the Coupeville exchange and always has been.

Throughout the year of wrangling which went on and since the order in UT-950277, GTE has never changed its Coupeville exchange map. By that map, the SSA is indeed in the Coupeville exchange as well. The order in UT-950277 indicates in a statement in the "Background" section that the two exchanges overlap. "The SSA is a portion of WTC's South Whidbey Exchange which overlaps a portion of GTE's Coupeville exchange."

The policy that staff has recommended is that all filings be for complete exchange areas; inequities will result if companies can file for only portions of a service area (that is, exchange). Is Whidbey filing for a portion of the Coupeville exchange? Is GTE filing for a portion of the South Whidbey exchange?

The solution staff recommends relies on looking deeper into the exchange map filing. The January 10, 1995 filing contains a map with a key that refers to the supplemental area with boundaries marked by an "s" and to the exchange boundaries marked with an"e". The area in dispute is marked "e/s", for which there is no reference in the key. In the letter accompanying the filing dated January 10, 1995 and signed by David C. Henney,

President and General Manager, he states: this tariff revision is being made for the purpose of establishing a Supplemental Service Area in the area that is north of the Company's existing South Whidbey Exchange boundary." He does not say that he is extending the boundary; rather, he seeks to create something new, an SSA.

The recommendation of the staff is that the Commission find that the South Whidbey exchange is bounded by the southern boundary of the Coupeville exchange; that the tariff filed in 95-0030 did not establish a new northern boundary of the South Whidbey exchange[32]; that Whidbey is designated an ETC for the South Whidbey exchange; that the SSA continues but that it is not recognized by the Commission for any universal service or similar support calculations; and that GTE may count those customers it has, if any, in the SSA as customers of the Coupeville exchange and that they have been so before and since the effective date of Whidbey's 95-0030 filing.[33]

Entry of Wireless

The petition by US Cellular, a wireless carrier, for ETC status in the USWC exchanges of Centralia, Chehalis, Winlock, Castle Rock, Yakima and Pasco and the GTE exchanges of Woodland, George and Quincy, is the first instance of a non-wireline carrier seeking designation in Washington.

Staff recommends approval of their ETC petition and designation in each of the several exchanges. We recommend this because they have filed in non-rural exchanges and because they can provide basic service to all potential customers in these exchanges. This is the same standard we have applied to all the petitions.

At the same time, we recognize there may be some issues unique to wireless which may present themselves. Staff recommends that the best way to get these issues on the table and resolved is to approve the petitions. This gives us one year to grapple with the issues prior to state and federal dollars being at stake for this particular cellular company and the incumbents who presently serve the exchanges for which the petition seeks designation.

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[32] If necessary, include a finding that the reference to overlapping exchange boundaries in the "Background" section of the Fifth Supplemental Order in UT-950277 was *dicta.*

[33] Neither company responded positively to staffs question about the possibility that they each file for ETC designation in the "other's" exchange.

APPENDIX C

September 10, 1997

TO: Commissioner Gillis

FROM: Bob Shirley, Regulatory Consultant

RE: Answers to Questions Related to Designation of Eligible Telecommunications Carriers for Purposes of Universal Service Funding and Additional Information on Service Area Definitions

The questions below are the one's you asked via e-mail on September 3. References to the Act and Orders are noted in the text; footnotes are used for explanation.

1. Are the decisions to grant Eligible Telecommunication Carrier (ETC) status and the decision to grant a rural exemption the same?

No, these decisions are not the same, but they do affect the nature and level of competition in areas served by rural telephone companies.[1] The designation of ETCs relates to eligibility for universal service funds and a resulting obligation to serve all customers in the ETC's service area, while the rural exemption is an exemption granted to rural telephone companies from the obligation to interconnect with competitors.

Designation of ETCs

Designation as an Eligible Telecommunications Carrier (ETC) will be the predicate to receiving universal service funds from the federal government through the so-called NECA process (36 C.F.R. 601 et seq.)[2] beginning January 1, 1998. State commissions are

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[1] Rural Telephone Company is defined in section 3(37) (47 U.S.C. 153(37)):

The term 'rural telephone company' means a local exchange carrier operating entity to the extent that such entity-

(A) provides common carrier service to any local exchange carrier study area that does not include either-

(i) any incorporated place of 10,000 inhabitants or more, or any part thereof, based on the most recently available population statistics of the Bureau of the Census; or

(ii) any territory, incorporated or unincorporated, included in a urbanized area, as defined by the Bureau of the Census as of August 10, 1993;

(B) provides telephone exchange service, including exchange access, to fewer that 50,000 access lines;

(C) provides telephone exchange service to any local exchange carrier study area with fewer than 100,000 access lines; or

(D) has less than 15 percent of its access lines in communities of more than 50,000 on the date of enactment of the Telecommunications Act of 1996.

[2] NECA stands for National Exchange Carrier Association, which has been the administrator of the federal universal service fund.

responsible for designation of ETCs; they may do this on their own motion or upon request of a carrier. 47 U.S.C. 214(e)(2). States are not required to designate more than one ETC in areas served by rural telephone companies; they must designate two or more ETCs in all other areas, "so long as each requesting carrier meets the requirements of paragraph [47 U.S.C. 214(e)](1)." 47 U.S.C. 214(e)(2). In order for a state to designate an additional carrier as an ETC in an area served by a rural telephone company, the state must find that it is "in the public interest" to do so. 47 U.S.C. 214(e)(2).

A designated ETC must agree to provide the services[3] supported by federal universal service funds and advertise the availability of their services. 47 U.S.C. 214(e)(1).[4] The service may be supplied using "its own facilities or a combination of its own facilities and resale of another carrier's services (including the services offered by another eligible telecommunications carrier)."[5] 47 U.S.C. 214(e)(1)(A) (emphasis added).

Rural Exemption from Interconnection Requirements

Rural exemptions to the interconnection requirements are not tied to ETC status and are not made, initially, by state commissions. Interconnection requirements are governed by section 251 of the act. All local exchange carriers (LECs) have a duty to interconnect with other carriers and to not install network features which would frustrate interconnectivity or interfere with access by persons with disabilities. 47 U.S.C. 251(a). All LECs have an obligation to provide resale, number portability, dialing parity, access to rights-of-way, and to establish reciprocal compensation agreements. 47 U.S.C. 251(b).

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[3] The FCC defined basic service in its Universal Service Order. Paragraphs 62 through 82 define those services. They are: 1) Single party service; 2) Voice grade access to the public switched network; 3) Support for local usage; 4) Dial tone multi frequency signaling; 5) Access to emergency services (911); 6) Access to operator services; 7) Access to Interexchange services; 8) Access to directory assistance and white pages directories, and; 9) Toll limitation services. ¶ 62-82, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

[4] The FCC has concluded that neither they nor the states may add requirements beyond the two found in 214(e)(1). ¶ 137, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997). At the same time, the FCC has concluded that states may adopt regulations to define the advertising requirement. See ¶ 148.

[5] The FCC has concluded that carrier must be able to serve all potential customers in a service area, but may do so with its own facilities or by combining its facilities with those of another carrier. This is important for wireless carriers in particular. The FCC has concluded wireless carriers are eligible to be designated as ETCs provided they have the ability to serve all potential customers in a service area, which they may accomplish through combining their services with land line services of another carrier. ¶ 141 & ¶ 145, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

Additional obligations are placed on incumbent local exchange carriers (ILECs).[6] The ILECs are required to negotiate in good faith the agreements required by 251(b), provide convenient interconnection, provide nondiscriminatory access to unbundled network elements, offer services for resale at wholesale rates, give reasonable notice of changes that will affect interoperability and to provide for physical collocation of equipment from other LECs. 47 U.S.C. 251(c).[7] The exemption enjoyed by rural telephone companies is from these last six requirements placed on all ILECs. 47 U.S.C. 251(f). This exemption, however, is subject to termination by states. 47 U.S.C. 251(f)(1)(B). When in receipt of a notice from a party that it has made a "bona fide" request of a rural telephone company for interconnection, the state commission must make an inquiry and terminate the exemption if it finds the request for interconnection is not unduly economically burdensome, is technically feasible and is consistent with section 254 (governing universal service).[8] This commission terminated the exemption for GTE with respect to the former Contel exchanges.[9]

2. Will the Act allow a rural ILEC to be designated an ETC but still open to the possibility of competition (either of the interconnected unbundled element or facilities based variety)?

Yes, a rural ILEC designated as an ETC may face competition. Competition could come as a result of designation of a competitive local exchange carrier (CLEC) as a second ETC in an area served by a rural telephone company, through a finding that the interconnection exemption is no longer warranted and that the rural ILEC must lease unbundled elements to a CLEC, or through facilities based competition. CLEC competition through interconnection without ETC designation and facilities based competition would not result in eligibility to receive universal service funds nor the obligation to serve all customers in the service area.

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[6] ILEC is defined in § 251(h) as providing service on the date of enactment of the 1996 Telecommunications act and membership in the exchange carrier association in accordance with 47 C.F.R. 69.601... 47 U.S.C. 251(h)

[7] Rural carriers may petition their state commission for a suspension or modification of the requirements of subsections (b) or (c) to avoid significant adverse economic impacts, to avoid unduly economically burdensome requirements and to promote the public interest. §251(f)(2).

[8] The FCC rule which placed a burden of proof on the rural telephone company to show that it is entitled to the continued exemption was vacated by the United States Court of Appeals for the Eighth Circuit. See Iowa Utilities Board v. FCC, slip opinion at http://ls.wustl.edu/8th.cir (July 18, 1997) vacating, *inter alia*, 47 C.F.R. 51.405.

[9] The termination was not based on a finding under 47 U.S.C. 251(f), but on a finding that GTE should be estopped from claiming the exemption after it had entered into interconnection negotiations pursuant to 47 U.S.C. 251(c). WUTC Docket UT-960324, Second Supp. Order (Dec. 11, 1996).

In order for the commission to designate a second ETC in an area served by a rural telephone company the commission must make a finding that the second designation is in the public interest. 47 U.S.C. 214(e)(2). The second carrier must meet the obligation to serve all customers who request their service and advertise the availability of their service. Only designation as an ETC entitles a carrier to federal universal service funds.[10]

3. Does the Act preclude a carrier designated as an ETC from competing in a territory of a carrier not designated as an ETC (e.g. Whidby into GTE territory)? How about an ETC competing directly within another ETC carrier?

No, an ETC may compete in other areas, both against ETCs and non-ETCs, and, where two or more ETCs have been designated for a particular service area, there must be competition. The one restriction is that a telecommunications carrier may not use services that are not competitive to subsidize services that are subject to competition. 47 U.S.C. 254(k). In the case of Whidby competing with GTE, the restriction would be that costs associated with competitive services provided through Whidby Islands facilities would have to be assigned in such a way that they were not supported by universal service funds.

4. Are ETC designated carriers assigned regions that are noncompetitive, at least for a period of time?

No, these are not "noncompetitive areas"; it is better to think of ETCs in terms of the obligation to serve all customers in exchange for eligibility to draw on universal service funds. As a practical matter, however, the combination of designation as an ETC in a rural area coupled with the exemption from interconnection and the FCC's intention to permit rural telephone companies to receive federal universal service fund support based

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[10] The ETC designation is a requirement for federal universal service funds; it is not a requirement for state universal service funds. States are free to develop (or revise in the case of Washington) their own universal service program so long as their program "is not inconsistent" with FCC rules. 47 U.S.C. 254(f). Section 254 also includes a requirement that all carriers contribute to the state universal service fund in a non-discriminatory basis. Also, "[a] state may adopt regulations to provide for additional definitions and standards to preserve and advance universal service within that state only to the extent that such regulations adopt additional specific, predictable and sufficient mechanisms to support such definitions or standards that do not rely on or burden Federal universal service support mechanisms." (Emphasis added). The Federal-State Joint Board quoted the Joint Explanatory Statement of the Committee on Conference to underscore state jurisdiction and authority. "Section 254(f) was intended to preserve state authority over universal service matters within certain parameters. Indeed, the Joint Explanatory Statement states that '[s]tate authority with respect to universal service is specifically preserved under new section 254(f).'" ¶ 819, Recommended Decision, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (November 8, 1996) quoting Joint Explanatory Statement at 132.

upon embedded costs through 2000,[11] may result in some companies facing no competition in their service area for some years to come.

5a. Are there implications associated with the fact that Washington does not have franchises?

The lack of exclusive franchises for telecommunications companies in Washington will not inhibit designation of ETCs and definition of their service areas. The service areas associated with ETCs will not be exclusive service territories; the service areas define the area in which an ETC must serve customers.[12] Non-ETC companies may compete for any or all customers in those same areas, but the competitors will not receive universal service funds for serving high-cost customers unless they requests and are awarded ETC status.

5b. Do we want to presume that rural carriers that we choose to be ETCs should also be supported as natural monopolies as a matter of policy?

The exemption from interconnection is more closely associated with monopoly power than is the ETC designation. In a situation where the Commission terminates the interconnection exemption of a rural telephone company, they may well face competition from non-ETC companies.

Additional Information on Service Area Definition

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[11] The FCC does not intend to move rural telephone companies to a forward-looking economic cost mechanism for determining the necessary level of universal service support until after non-rural carriers begin using forward-looking economic cost mechanisms. The Universal Service Order states:

> Consistent with our plan for non-rural carriers, we shall commence a proceeding by October 1998 to establish forward-looking economic cost mechanisms for rural carriers. Although a precise means of determining forward-looking economic cost for non-rural carriers will be prescribed by August 1998 and will take effect on January 1, 1999, rural carriers will begin receiving support pursuant to support mechanisms incorporating forward-looking economic cost principles only when we have sufficient validation that forward-looking support mechanisms for rural carriers produce results that are sufficient and predictable. Consistent with the Joint Board's recommendation that mechanisms for determining support for rural carriers incorporate forward-looking cost principles, rather than embedded cost, we will work closely with the Joint Board, state commissions, and interested parties to develop support mechanisms that satisfy these principles. See ¶ 252, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997).

[12] "Our interpretation of RCW 80.36.230 enables the Commission to define the geographical limits of a company's obligation to provide service on demand and to delineate the boundaries between local and long distance calling." In re Electric Lightwave, Inc., 123 Wn.2d 530, 537.

As important a factor as designation of ETCs is to maintaining available and affordable service for all customers, the definition of the company service areas may be the most important factor in promoting fair competition. The service area is the area in which an ETC must serve all customers. Competitive entry will be affected by the size and nature of service areas. For both non-ETC competitors and those seeking status as an additional ETC for a given service area, a large service area with many high-cost customers in relation to the total customer base will not be as attractive as will be a service area with fewer high-cost customers in relation to the total potential customers. Commission designation of service area boundaries will have a substantial effect on the level of competition which develops and whether it develops uniformly or in limited locations.

The definition of service area is addressed in the Act with states and the FCC each given a role. States are to establish service areas. In the case of rural telephone companies, however, the Act states that "service areas means such company's 'study areas'[13] unless and until the [FCC] and the States , taking into account recommendations of a Federal-State Joint Board...establish a different definition of service area for such company." 47 U.S.C. 214(e)(5).

The Joint-Board has recommended that rural telephone company service areas not be changed at the present time,[14] but they did recommend that service areas for non-rural companies be reduced in size to promote competition.[15] The FCC has adopted this recommendation[16] and established regulations for review of state decisions to vary from this recommendation.[17] Both acted from a view that the Act places rural telephone

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[13] A "study area" is generally an incumbent LEC's pre-existing service area in a given state. The study area boundaries are fixed as of November 15, 1984. MTS and WATS Market Structure: Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board, Decision and Order, 50 Fed. Reg. 939 (1985).

[14] ¶ 172, Recommended Decision, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (November 8, 1996).

[15] "The Joint Board thus recommends that the Commission urge the states to designate service areas for non-rural telephone company areas that are of sufficiently small geographic scope to permit efficient targeting of high cost support and to facilitate entry by competing carriers. " ¶ 175, Recommended Decision, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (November 8, 1996).

[16] ¶ 189, First Report and Order, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (May 8, 1997). But see ¶ 190 in which the FCC concludes universal service policies will be best served if states adopt only contiguous exchanges of rural telephone companies as their service areas. To do otherwise, the FCC concluded, might present serious barriers to entry, particularly for wireless companies.

[17] 47 C.F.R. 54.207. The process requires states to forward a copy of their order and rationale for changing a service area of a rural telephone company to the FCC, which will provide notice of the petition within fourteen days and act on the petition within 90 days. The service area does not take effect until the FCC acts or until 90 days

companies on "a different competitive footing" than non-rural companies as evidenced by the exemption from interconnection, unbundling and resale requirements.[18]

Notwithstanding the recommendations of the Joint Board and their adoption by the FCC, your staff is considering a recommendation that service areas for ETCs, both rural and others, be set initially at the exchange level. This consideration of exchange-level boundaries is as a result of the Joint Board's own discussion. The paragraphs quoted below appear to support smaller service areas generally, more so than they appear to support the status quo for rural telephone companies and smaller service areas only for non-rural companies.

> 176. We recommend that the Commission encourage states, where appropriate to foster competition, to designate service areas that do not disadvantage new entrants. Consequently, we recommend that the geographic size of the state designated service areas should not be unreasonably large. An unreasonably large area may deter entry because fewer competitors may be able to cover start-up costs that increase as the size of the area they must serve increases. This would be especially true if the states adopt as the service area the existing study areas of larger local exchange companies, such as the BOCs [Bell Operating Companies], which usually include most of the geographic area of a state, urban as well as rural. Additionally, if states simply structure service areas to fit the contours of an incumbent's facilities, a new entrant, especially a CMRS [Commercial Mobile Radio Service]-based provider, might find it difficult to conform its signal or service area to the precise contours of the incumbent's area.
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> 177. We note that state adoption of unreasonably large service areas could potentially violate section 254(f), which prohibits states from adopting regulations that are "inconsistent with the Commission's rules to preserve and advance universal service."[19] State designation of an unreasonably large service area could also implicate section 253 if it "prohibit[s] or ha[s] the effect of prohibiting the ability of an entity to

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have passed without action, in which case the petition is deemed approved.

[18] This is the view expressed by the Joint Board and adopted by the FCC. See ¶ 173, Recommended Decision, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45 (November 8, 1996).

[19] 47 U.S.C. § 254(f).

provide any interstate or intrastate telecommunications service,"[20] and is not "competitively neutral" and "necessary to preserve and advance universal service."[21]

178. Even if the state commission were to designate a large service area, however, we believe that it would be consistent with the 1996 Act to base the actual level of support, if any, that non-rural telephone company carriers would receive for the service area on the costs to provide service in sub-units of that area. We recommend that the Commission, where necessary to permit efficient targeting of universal support, establish the level of universal service support based on areas that may be smaller than the service area designated by the state. The service area designated by the state is the geographic area used for "the purpose of determining universal support obligations and support mechanisms."[22] We find that this language refers to the designation of the area throughout which a carrier is obligated to offer and advertise universal service. It defines the overall area for which the carrier will receive support from the "specific, predictable, and sufficient mechanism established by the Commission to preserve and advance universal service."[23] We conclude that this language would not bar the Commission from disaggregating the state-designated service area into smaller areas in order to: (1) identify high cost areas within the service area; and (2) determine the level of support payments that a carrier would receive for the overall service area based on the sum of the support levels as determined by the costs of serving each of the disaggregated areas. (Emphasis added; footnotes appear in original text.)

Rural telephone companies are protected from competition not by designation as ETCs or by the size of their service areas. They are protected from competition by the exemption from interconnection. That exemption is subject to removal by a decision of the commission on a case-by-case basis. Any such decision, however, would be rendered far less significant if states cannot define service areas for rural telephone companies which, after interconnection is approved, are of a size that would promote competition.

There is work yet to be done on service area definition. There are already meetings

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[20] 47 U.S.C. § 253(a).

[21] 47 U.S.C. § 253(b).

[22] 47 U.S.C. § 214(e)(5).

[23] 47 U.S.C. § 254(d).

scheduled with company representatives to hear their views and concerns about this issue. Whatever recommendation is made, and whatever decision is made by the commission, the outcome will set the stage for competition in the future.

cc: Glenn Blackmon
Tom Wilson
Tim Zawislak
Universal Service Group (e-mail)

APPENDIX D

APPENDIX E

Appendix E

Washington Independent Telephone Association (WITA)

Development of a Federal Support Plan that Features Sub Wire Center Targeting of Actual Federal Support.

August 6, 1998

Summary

Following is a description of the analytical process used to derive a mechanism that associates existing Federal Universal Service Fund (FUSF) support levels with the incumbent local exchange carrier's (ILEC's) cost structure at a sub wire center level. Because loop costs are largely a function of loop length and subscriber density, the ILEC's cost structure will feature a substantial cost variance within wire centers. Virtually all wire centers have a central core area near the office where loops are short and subscriber density is relatively high. These same wire centers also serve subscribers extending well beyond the core area, where loops are long and subscriber density is lower. Associating the FUSF support levels with sub wire center costs encourages efficient competitive entry by providing proper price signals to potential entrants. This deters artificial entry in lower cost core areas and, conversely, stimulates efficient entry in the higher cost fringe areas. To otherwise associate an averaged support level with the lower cost core areas will expose the ILECs to a loss of low cost customers (and their associated average FUSF support) to competitive local exchange carriers (CLECs) with continued requirements to provide service to high cost customers (with their average support).

While it is possible to measure loop cost at a more granular level (e.g., grids, census blocks, or census block groups (CBGs)), this proposal limits the granularity to two zones for each wire center. As such, the proposal balances the need for accuracy with the necessity of administrative ease. Every service address can be associated with one of two zones by simply identifying the serving wire center and CBG associated with the service address[1]. It is expected that work will continue over the next two years to develop administrative processes that accommodate support portability at finer levels of granularity.

The Process

The process of developing the portable per line support by sub wire center zone has five major steps:

1) The BCPM v3.1 is used to compile cost information for all Washington LECs. The BCPM produces detailed investment and cost information on a grid level. The BCPM

[1] The ability to associate a service address with a CBG is readily available at, for example, http://www.geocode.com/eagle.html-ssi. From this information, existing customer records can be augmented with a field identifying the zone for the service address.

calculation uses actual access line counts at the wire center level provided by each ILEC, but otherwise reflects the set of default inputs featured in version 3.1. Each company supplied a list of actual residence, business and special access line counts for its exchanges that were input into the BCPM using the input module. The loop, switching, transport and capcost modules were then processed for the state of Washington. A modified CBG rollup module was developed by BCPM modelers that allows the detailed grid information to be rolled up to the CBG level in a single run of the module. The CBG rollup module creates an output file containing CBG investment and cost information for all modeled wire centers in the state. The roll up of the grid data into CBGs associates the portions of CBGs that straddle a wire center boundary with each respective wire center. As an example of this process, schedule 1 illustrates the BCPM results, by CBG, for the single wire center serving Ellensburg, Washington (ELBGWAXA).

2) Each CBG within every wire center is classified as either a zone A or a zone B CBG. Zone A contains each CBG with an average per-line cost that is less than the wire center average per-line cost. Zone B is comprised of the remaining CBGs, each of which has an average per-line cost greater than the wire center average per-line cost. If the entire wire center falls within a single CBG, the CBG is shown in zone A. Schedule 2 shows the result of classifying the Ellensburg wire center CBGs into zones A and B.

3) The proxy support per line can be calculated as the difference between the per-line proxy cost for each zone and a given set of benchmarks. For purposes of this demonstration, the benchmarks suggested by the FCC of $31 for residential service and $51 for business were used[2]. Multiplying the ILEC access line counts for each zone by the per-line proxy support produces the aggregate proxy support by zone. The aggregate proxy support is then summed for each ILEC to calculate the ILEC's aggregate proxy support. Schedule 3 depicts the results for Ellensburg Telephone Company.

4) A reconciliation factor is used to reconcile the aggregate proxy support by ILEC with the actual 1998 FUSF as reported by the National Exchange Carrier Association, Inc. (NECA). The actual federal support values were available for the first quarter of 1998. This USF support amount (comprised of High Cost, Local Switching Support, and Long-Term Support) was annualized by multiplying the supported amount by four. The ratio of the actual 1998 Federal support to the ILEC's proxy support is the reconciliation factor. The development of the reconciliation factor for the Ellensburg Telephone Company is demonstrated in schedule 4.

5) The reconciliation factor is applied to the calculated per-line proxy support for each zone in each wire center. When applied to the actual access lines by zone and then aggregated by ILEC, the support reconciles back to the specified actual federal support. This process is illustrated in schedule 5.

[2] See FCC Report and Order on Universal Service (FCC 97-157), Section 267, released May 8, 1997.

Results

The result is a set of per-line support values that properly reflect the ILEC's sub wire center level costs and reconciles back in total to the specified actual 1998 FUSF support. Schedule 6 illustrates the results for the Ellensburg wire center. As indicated in the schedule, a wire center average support would associate $4.36 per line of support to all subscribers, regardless of whether they are located in the relatively low cost core area or the high cost outer fringe area. Targeting the support to two zones produces entry price signals that more appropriately reflect the cost of service. The sub wire center targeting produces portable support for the Ellensburg wire center of $0.00 per line in the lower-cost zone A and $24.79 in the higher-cost zone B. As indicated in the schedule, this result logically follows the subscriber density and loop length characteristics of the serving area. Whereas zone A features density of 391 lines per square mile with an average loop length of 9,576 feet, the zone B area has a density of ten lines per square mile with an average loop length of over 39,370 feet. Attached are maps showing the boundaries of the Ellensburg exchange and the CBGs that comprise the exchange. The maps clearly show the existence of a relatively densely populated core area surrounded by a low-density fringe area.

The targeting results for the full set of WITA Companies,[3] other than Hat Island Telephone Company,[4] is provided as schedule 7. As indicated in the schedule, support is targeted among each wire center's zones using the calculated cost of service within the zones. Portability, along these lines, would more properly associate support with the cost of providing service. This procedure would accommodate efficient entry in the higher-cost fringe areas as well as the lower-cost core areas within each wire center.

[3] Colloquial names for the member companies are used in the schedules included in Appendix F.

[4] Hat Island Telephone Company is not included in the attached schedules because of a lack of reliable CBG data for this very small company serving approximately 100 customers on an island in Puget Sound.

APPENDIX F

Schedule 1: BCPM 3.1 Results by CBG for the Ellensburg, WA Wire Center

CBG	Area (Sq Mi) in CBG/WC	Residence Lines	Business Lines	Total Lines	Density (Lines per Sq Mi)	UnCapped Monthly Cost per Line	Total Monthly Cost
530379752003	11.01	318	53	370	34	64.37	23,837.85
530379752004	59.02	131	11	141	2	288.31	40,760.23
530379753001	70.96	447	467	914	13	85.15	77,860.20
530379753002	49.68	460	58	519	10	100.30	52,017.43
530379753003	23.81	151	62	213	9	157.83	33,585.28
530379754001	0.49	472	48	520	1,072	27.79	14,460.14
530379754002	0.75	570	82	652	865	30.90	20,138.42
530379754003	0.36	522	57	580	1,626	27.23	15,780.53
530379754004	0.28	450	53	503	1,803	28.05	14,100.97
530379754005	0.53	420	81	501	945	29.37	14,711.13
530379754006	0.23	613	201	814	3,491	26.33	21,427.41
530379754007	0.37	480	236	717	1,949	26.23	18,797.66
530379754008	9.33	688	390	1,078	116	36.35	39,186.61
530379755001	6.15	539	202	741	120	37.63	27,874.18
530379755002	0.68	702	60	762	1,116	25.98	19,807.58
530379755003	0.37	617	102	719	1,923	26.88	19,328.16
530379756001	0.19	557	601	1,158	6,216	22.18	25,685.41
530379756002	0.28	449	1,265	1,714	6,208	21.71	37,214.56
530379756003	0.24	327	282	609	2,532	25.83	15,735.44
530379756004	2.16	331	163	494	228	31.09	15,365.25
530379757001	7.56	447	85	532	70	42.38	22,544.41
530379757002	1.53	208	4	211	138	38.98	8,238.84
530379757004	57.16	407	61	469	8	162.25	76,041.24
ELBGWAXA	**303.13**	**10,307**	**4,624**	**14,931**	**49**	**43.83**	**654,498.92**

Schedule 2: Classification of Ellensburg, WA CBGs into Cost Zones

CBG	Area (Sq Mi) in CBG/WC	Residence Lines	Business Lines	Total Lines	Density (Lines per Sq Mi)	UnCapped Monthly Cost per Line	Total Monthly Cost
Zone A CBGs							
530379756002	0.28	449	1,265	1,714	6,208	21.71	37,214.56
530379756001	0.19	557	601	1,158	6,216	22.18	25,685.41
530379756003	0.24	327	282	609	2,532	25.83	15,735.44
530379755002	0.68	702	60	762	1,116	25.98	19,807.58
530379754007	0.37	480	236	717	1,949	26.23	18,797.66
530379754006	0.23	613	201	814	3,491	26.33	21,427.41
530379755003	0.37	617	102	719	1,923	26.88	19,328.16
530379754003	0.36	522	57	580	1,626	27.23	15,780.53
530379754001	0.49	472	48	520	1,072	27.79	14,460.14
530379754004	0.28	450	53	503	1,803	28.05	14,100.97
530379754005	0.53	420	81	501	945	29.37	14,711.13
530379754002	0.75	570	82	652	865	30.90	20,138.42
530379756004	2.16	331	163	494	228	31.09	15,365.25
530379754008	9.33	688	390	1,078	116	36.35	39,186.61
530379755001	6.15	539	202	741	120	37.63	27,874.18
530379757002	1.53	208	4	211	138	38.98	8,238.84
530379757001	7.56	447	85	532	70	42.38	22,544.41
Zone A Total	**31.49**	**8,393**	**3,912**	**12,305**	**391**	**28.48**	**350,396.69**
Zone B CBGs							
530379752003	11.01	318	53	370	34	64.37	23,837.85
530379753001	70.96	447	467	914	13	85.15	77,860.20
530379753002	49.68	460	58	519	10	100.30	52,017.43
530379753003	23.81	151	62	213	9	157.83	33,585.28
530379757004	57.16	407	61	469	8	162.25	76,041.24
530379752004	59.02	131	11	141	2	288.31	40,760.23
Zone B Total	**271.64**	**1,914**	**712**	**2,626**	**10**	**115.80**	**304,102.23**
ELBGWAXA	**303.13**	**10,307**	**4,624**	**14,931**	**49**	**43.83**	**654,498.92**

Schedule 3: Calculation of Proxy Support for Ellensburg Telephone Company

			BCPM 3.1 output	Company access line counts		E + F	(D-R_BM)	(D-B_BM)	E * H * 12	F * I * 12	J + K
A	B	C	D	E	F	G	H	I	J	K	L
OBS	Office (SWC)	Zone	BCPM $/Ln	Res Lns	Bus Lns	Tot Lns	Support Per RLn	Support Per BLn	Residentl Support	Business Support	Total Support
1	ELBGWAXA	A	28.48	8,393	3,912	12,305	0.00	0.00	0	0	0
	ELBGWAXA	B	115.80	1,914	712	2,626	84.80	64.80	1,947,568	553,792	2,501,360
2	KTTSWAXX	A	57.91	601	17	619	26.91	6.91	194,179	1,448	195,627
	KTTSWAXX	B	125.87	634	159	792	94.87	74.87	721,471	142,440	863,911
3	LDDLWAXA	A	384.04	33	1	34	353.04	333.04	140,197	3,460	143,657
	LDDLWAXA	B	451.77	76	20	96	420.77	400.77	383,273	96,831	480,104
4	SELHWAXX	A	33.63	4,770	1,072	5,842	2.63	0.00	150,353	0	150,353
	SELHWAXX	B	107.90	957	75	1,032	76.90	56.90	883,153	51,039	934,192
5	THRPWAXA	A	173.91	262	86	347	142.91	122.91	449,026	126,222	575,248
	THRPWAXA	B	459.09	79	1	81	428.09	408.09	406,701	6,966	413,667
6	VNTGWAXX	A	72.54	79	57	136	41.54	21.54	39,380	14,733	54,113
	VNTGWAXX	B	0.00	0	0	0	0.00	0.00	0	0	0
Ellensburg Telephone Co			**52.76**	**17,798**	**6,112**	**23,910**	**24.89**	**13.59**	**5,315,301**	**996,931**	**6,312,232**

Residential Benchmark: 31.00
Business Benchmark: 51.00

Schedule 4: Development of the Support Reconciliation Factor for Ellensburg Telephone Company

(1) Federal Support (1Q 1998) for Ellensburg Telephone Company:

High Cost Fund	0
LTS	48,412
DEM Weighting	444,508
Total Federal Support	492,919

(2) Conversion to Annual Federal Support:

1Q 1998 Federal Support	492,919
	4
Annual Federal Support	1,971,676

(3) Calculation of the Reconciliation Factor:

Actual 1998 Federal Support	1,971,676
Proxy Support from Schedule 3	6,312,232
Reconciliation Factor	0.31236